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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,900	01/28/2002	Joseph L. Dallas	CVI-0009	5173

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CANTOR COLBURN, LLP
55 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

EXAMINER

ZARROLI, MICHAEL C

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,900

Applicant(s)

DALLAS ET AL.

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-19 and 21-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-35 is/are allowed.
- 6) ☒ Claim(s) 1-4,14-19 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Drawings

1. Objections have been overcome.

Specification

2. Objections have been overcome.

Claim Objections

3. Claim objections have been overcome.
4. Claim 24 objected to because of the following informalities: There's an antecedent problem with "the reference measurements." Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Rejections have been overcome.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4, 15, 17-19, 21 and, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto et al.

Matsumoto discloses a method for fabricating an optical fiber array (title).

A substrate (2) with through holes (3) for receiving optical fibers (1) is also disclosed. Matsumoto discloses applying adhesive (5) into these holes so that each fiber is coated with the adhesive (fig. 1). The position of these fibers is adjusted in the holes after applying the adhesive (paragraph 0016, lines 2-3). Finally, Matsumoto discloses curing the adhesive to fix the fibers in the respective holes (paragraph 0032, line 2).

Regarding claims 2-3 and, 18-19 Matsumoto discloses that the through-holes are spaced from each other by a predetermined existence (fig. 5) and that they are the same distance from the bottom of the substrate (fig.5).

Regarding claim 4 Matsumoto discloses that the adhesive is UV cured (abstract line 8).

Regarding claims 15 and 23 Matsumoto discloses that the substrate has upper and lower plates with grooves and, the plates are mated to form the through-holes (fig. 4).

Regarding claim 17 Matsumoto discloses that the cores of the optical fibers are aligned in accordance with reference measurements (paragraph 0017 & paragraph 0030 last four lines).

Regarding claim 21 Matsumoto discloses that the fibers have no contact with the sidewalls of the holes (fig. 2).

Claim Rejections - 35 USC § 103

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al as applied to claims 1 and 17 above, and further in view of Yui et al.

Matsumoto does not disclose that the substrate is a unitary structure.

Yui discloses an array of fibers affixed with adhesive in a unitary substrate (fig. 12A).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to manufacture the substrate of Matsumoto into a unitary structure as taught by Yui. It has been held that forming in one piece an article, which has formerly been formed in two pieces, and put together, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The motivation/suggestion for doing so would have been to cut down on manufacturing costs.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto as applied to claim 15 above, and further in view of Ohtsuka et al.

Matsumoto does not disclose that the groove of one of the plates is tapered so that the through hole has an enlarged inlet portion.

Ohtsuka discloses that the groove in a plate is tapered (23) so that the hole has an enlarged inlet portion for inserting fiber (fig. 11).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the groove of Matsumoto to be tapered as taught by Ohtsuka. The motivation for such a modification would be to prevent damage to the optical fiber during insertion into the through hole.

Response to Arguments

12. Applicant's arguments filed 8/11/03 have been fully considered but they are not persuasive. The applicant is mistaken when stating on page 10 that the examiner acknowledged that "UV cure" was a patentable limitation. Matsumoto et al clearly (abstract for example) states UV curing. In the first office action, the examiner rejected UV curing in claims 4 and 20. As stated in the allowable matter section in the last office action, claim 8 **in its entirety** (now cancelled) was allowable when combined with claim 1. Claim 8 recited not only UV curing but a means for protecting the UV cured adhesive during the adjusting step. The cancellation of claim 20 and the inclusion of its matter in claim 17 also doesn't work because the examiner rejected claim 20 in the first office action.

Allowable Subject Matter

13. Claims 24-35 are allowed over the prior art of record.
14. Claims 5-7 and, 9-13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
15. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record either alone or in combination discloses the combination in independent claim 24 specifically the adjusting step which comprises, grasping the fiber with a manipulator, adjusting the fiber in a first direction in accord with reference measurements and, curing the adhesive. The examiner notes that all these steps occur simultaneously during the “adjusting step.”

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 703-305-0608. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Feild can be reached on (703) 308-2710. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Michael C. Zarroli
Primary Examiner
Art Unit 2839

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